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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 7 1926

REPORT FOR WEEK ENDING AUGUST 7, 1926.
(Unless otherwise indicated.)

HAVRE:

Droughty conditions continued during the past week. The maximum temperatures were not as high as for the previous week, while the minimum temperatures were also lower. The average wind velocity has been rather high due to continued wind movement rather than to any especially windy days. No rain was recorded during the week.

Harvesting of the plats is about completed. Corn is making very slow growth, although not suffering extremely due to lower temperatures.

Heading and combining are in full swing over this section. There is very little indication yet as to what yields will be. A few early reports indicate light weight per bushel.

JUDITH BASIN:

Hot dry weather during the past two weeks has caused all small grain crops to ripen very rapidly. All winter wheat, oats, and most of the flax on the the rotations, were harvested during the week, and if the hot dry winds continue all small grains on the station, with the exception of a few extremely late seeded plats, will be ripe within the next 5 or 6 days. The yields of all spring crops have undoubtedly been materially reduced by the drought and hot weather, but winter wheat is very plump and heavy, ranging in weight from 62 pounds to 64 pounds per bushel. Neighboring fields of winter wheat which have been combined are yielding from 20 to 30 bushels per acre.

Field work has been devoted to harvesting, haying, cultivating summer fallowed land, and roguing increase fields.

Visitors during the week were, Mr. K, Quisenberry, Mr. E. Sandberg, and Mr. A. J. Ogaard,

Maximum temperature, 94; Minimum, 43; Precipitation, .02 inches.

HUNTLEY:

The remaining plats of barley were cut this week, which completes the harvest of small grain crops for this season. Following harvest all grain plats in the miscellaneous experiments were duckfooted to kill thistles which are thick in the stubble and growing rapidly. Roads, fallow, and green-manured fallow, were also cultivated with the duckfoot.

Although no rain has been received during the past week, corn remains in about the same condition, green and fresh in the morning but wilted and curled in the afternoon. A good rain at this time might still make considerable feed and perhaps a little grain. Beans are in bloom, but will need rain to make a crop. Alfalfa in spots favored by runoff appears to be setting a heavy crop of seed again this year.

SHERIDAN:

Somewhat cooler weather prevailed over the most of the week. Harvesting of small grain was completed, with the exception of some of the later dates of seeding. Solid seedings of sorgo and Sudan grass are being cut today, as they have fired to such an extent that it appears best to harvest them now. Millet also is being cut for forage.

Sheridan, contd.

Corn on fall plowing has fired badly, and probably will have to be cut during the coming week. Very few ears have set on this corn, and apparently moisture would help it but little now. Corn on spring plowing has fired some, but still remains in fair condition on most plats. This corn has eared fairly well and is mostly in the milk stage now. Sorgo on fall plowing in Rot. 58 is firing some.

Field peas were threshed yesterday and today. Yields have not yet been computed, but the crop was above the average for the station.

The harvest round of soil samples was taken during the week. The ground appeared dry throughout the 6-foot depth sampled on grain stubble.

The well driller arrived at the station Thursday and has begun work.

Maximum temperature, 102; minimum, 45; Precipitation .13 inch.

DICKINSON:

Cooler weather has prevailed since the first of the week, with two light showers. These refreshed corn and other row crops but were too late for grain.

Threshing was started on August 5, but after a short run the machine had to be stopped on account of high wind. With the exception of barley and flax, all of the rotation plats were completed.

The yields of oats and wheat on the main rotations were the lowest obtained during the 20 years with the exceptions of 1919 and 1912. Wheat averaged only 4.4 bushels on the 25 plats. The tillage methods yielded as follows; disked corn ground, 5.2 bushels; spring plowing, 2.2 bushels; fall plowing, 0; fallow, 10.7 bushels; and green manure fallow, 4.8 bushels. The Nodak variety of durum wheat grown on these plats was affected by root rot, as well as by drought. Where Marquis wheat was grown on a few plats on the Normal School field the yields were a little better than those of Nodak grown on similar plats.

The 27 plats of Victory oats on the main field averaged only 6.2 bushels. On disced corn ground the average was 2.9 bushels; on spring plowing 1.0 bushel; on fall plowing, 0; on fallow, 29.9 bushels; on green manure fallow, 19.0 bushels; and on sod, 0.

Opata plums are ripening and have a very good crop considering the season. Silvia crabs are also ripe on trees planted in the spring of 1923.

Maximum temperature 99; Minimum 41; Precipitation .55 inch.

MANDAN:

Agronomy.

With the exception of the first day, the week has been characterized by moderate temperatures. Light showers during the middle period were helpful to crops, in that evaporation from the surface soil was checked.

Harvesting of all Dry Land grain plats, except barley and flax has been completed. Practically all continuous grain plats were failures, and were mowed in order to remove a rather considerable growth of Russian thistle which would go to seed shortly.

Soil moisture samples on corn, wheat and grass land, show very little moisture remaining from recent rains.

Sudan grass and sorghum varieties are making a good showing. With a normal fall of rain for this month, they should yield more fodder than corn.

Mandan, contd.

Agronomy.

Selfing in the Northwestern Dent breeding nursery has been completed. Altogether about 225 selfs and crosses were made.

Maximum temperature 104; Minimum 50; Precipitation 0.33

Cooperative Grazing Experiment.

Pastures are picking up somewhat since the recent rains of the past two weeks.

The steers on the hay land will be placed on the sweet clover pasture for 3 or 4 days to clean up the Russian thistle.

Arboriculture.

Quite a number of farmers have already applied for tree plantings in the spring of 1928. Many of these have visited at the Mandan station, desiring to there sign an application blank. This has been arranged where the farmer is in a county not maintaining a County Agent.

Over Sunday, August 8, Mr. Robert Wilson will be at Browning, Montana; E. J. George at Lusk, Wyoming; John L. Emerson, at Lewiston, Montana; Lewis Matthew, at Glendive, Montana.

Horticulture.

Apples and plums are ripening earlier than usual this year. Yellow Transparent and some of the Oldenburg apples have been picked from topworked trees, while Opata plums are ready to pick. Pembina and Raddison plums are also ripe. These two last mentioned varieties are large red plums of attractive appearance and good quality this year. They look decidedly superior to either Oziya or Cree at the present time. Several other new varieties from the Minnesota Fruit Breeding Farm are also ripening. Sandcherries are being picked for seed.

Hedges in the ornamental tests and on the grounds have been trimmed. Selfing and selection work has been in progress in the corn breeding blocks. Other work of the past week includes hoeing and cultivating in the gardens orchards and grounds.

Prof. C. C. Starring, Assistant Horticulturist at the Montana State College, was a visitor on Friday.

BELLE FOURCHE:

The first day of the week was hot, but the balance of the week was moderate in temperature. Showers threatened almost every day, though there was a measurable amount of rain on only one day.

Corn continued to show seasonable growth, but commenced to show signs of drought injury the latter part of the week. In spite of the cool weather the bottom leaves on nearly all plats were rolling on August 7.

Sorghum grew rapidly during the week, and is now nearly as tall as the corn. As yet it has not suffered from drought.

The second cutting of alfalfa averaged 1,100 pounds per acre, and the second cutting of sweet clover 1,200 pounds per acre.

Maximum temperature 98; Minimum 48; Precipitation .04 inch.

ARDMORE:

The past week has been favorable for all field work. Three days were quite hot and hot winds occurred on the fifth.

Millet varieties were harvested early in the week. The yields run from 1,750 pounds per acre for Hungarian to 5,150 pounds for Gold Mine.

Ardmore, contd.

Fifteen acres of oats in one of the field rotations were harvested during the week. Ten acres of this were cut with the binder and five acres were mowed for hay. This made about 500 pounds per acre.

Weeds have been hoed out of the corn in some of the fields and in the rotations.

All fallow plats were double disced on August 2.

Corn is drying up in spots in some of the feed fields and in the various rotations. Dakota Amber sorgo is also drying up in spots.

The cattle in the rotation pasture were moved into the second division at the end of July. This division is in very good condition, while the one from which they were removed was grazed down very close. The 150-acre pasture is in good condition. The 80-acre pasture is becoming short. The 320-acre reserve pasture is in excellent condition.

The gains of the steers for the month of July and for the period they have been on pasture, are as follows:

Pasture		July Gain Pounds Per Head	70 Day Gain Pounds Per Head
150 acres		10 herd 17.0	114
80 "		" 43.5	97
160 "	(Rotation) 16 head	" -5.3	62.2
320 "	(Reserve) 25 "	" 99.1	133.7*

* - Period of 50 days.

Maximum temperature 100; Minimum 54; Precipitation .02 inch.

ARCHER:

The weather during the week has been rather humid, with heavy dews at times and light showers during August 6 and 7. Under these conditions the crops are holding their own. Corn seems to be improving, but is rather short, while the sunflowers are making rapid growth.

Work at the station has consisted of weeding, repairing of machinery, among which a wagon and rack was constructed from the old manure spreader. The top of the floor of the rack is twenty inches from the ground. At present the threshing machine is being overhauled. All the winter wheat seeded on oat stubble, fallow and green manure, has been harvested. It appears that the average yield on fallow will be about 25 bushels per acre. Where this crop was seeded on corn ground with a row seeder and the seedings later than September 15, the grain is not yet mature.

Maximum temperature 91; Minimum 49; Precipitation .26 inch.

AKRON:

Harvesting and threshing held attention all week. The harvesting was all completed except some plats of winter wheat on the Cereal Project. These plats had a large percentage of green heads when the remainder of the plats were harvested, and it was decided to let them stand until more urgent harvesting could be cared for. The hail reported last week completely destroyed all ripe grain and damaged the green grain. The only grain remaining to harvest is these green, damaged heads. It probably matters not from the comparative yield standpoint whether the plats are harvested or not, but they will receive attention in due course of time. Threshing the Cereal Pro-

Akron, contd.

ject grain held attention till near the end of the week, when the rotation winter wheat plats were threshed; this work completed today. On the Cereal Project the yields were equal or in some cases less than the amount seeded last fall. The yields of winter wheat ranged from a few ounces to as many as four pounds of grain per fiftieth-acre plat. The best winter wheat on the rotations was the furrow drill seeded plat which yielded 4.7 bushels per acre. Rotation 269, the top dressed plat, yielded 4.3 bushels per acre. Rotation 268, the manured fallow plat, yielded 3.0 bushels per acre. The straight fallow in Rotation 267 yielded 1.7 bushels, while the straight fallow in Rotation 568 yielded 3.5 bushels per acre. The barley yields from the rotation plats were correspondingly low. MCC, the alternate crop and fallow plat, yielded 4.5 bushels per acre. The subsoiled plat and the fall plat of the MC Series each yielded .8 of a bushel per acre.

Row crops are making marked recovery from the hail damage reported last week. The awned and awnless Modocs are breaking into head; the awned strain showing a few days earlier than the awnless strain. This is about 60 days from seeding time. Last season these strains were in full head 57 days after seeding time. The only variety in the forage experiment to come into head earlier than these Modocs is the Brown Manchu, which is about a week earlier in its heading.

Maximum temperature 99; Minimum 59; Precipitation 0.

COLBY:

The weather continued dry and warm during the week. Corn is drying up quite rapidly now. All of those plats that have corn on fall plowing have completely dried and have been cut by hand. Sorghums were pulled in during the week on the project. It was not possible to level the ground, due to the short plants. Some spots on the plats were getting too large to throw in, especially should a rain come.

There will be almost a total failure of feed crops in this immediate section unless rain comes soon. All feed crops will be short.

A carload of alfalfa hay was unloaded and stored during the week.

The Wheat Festival train run by the Rock Island Railway and the Kansas State Agricultural College was at Colby on Thursday evening. Those in charge of the train report the largest crowd at Colby of any stop of the trip. The writer accompanied the train for two days, discussing the method of handling summer fallow.

Maximum temperature 100; Minimum 56; Precipitation 0; Average wind velocity 6.8 miles per hour; Evaporation 2.794 inches.

GARDEN CITY:

Another dry hot week has just closed. High temperatures accompanied with fairly high wind velocity have prevailed throughout most of the past week.

All row crops have made some growth in spite of the rather severe weather. Kafir and milo in rotation are beginning to head. Several varieties or sorghum in the earlier dates of planting are maturing well. Birds have eaten practically all of the grain on the first two dates of Feterita. Cowpeas are beginning to ripen.

Field work has consisted of cutting Sudan and Millet for hay, digging potatoes, plowing and listing wheat stubble.

Maximum temperature 104; Minimum 62; Precipitation 0.

DALHART:

Another dry hot week has passed with no sign of rain. The wind has been unusually quiet, so that the wind mill has run very little. This lack of wind has caused all cattlemen to run engines to supply water for cattle. If another week passes similar to this one, water will have to be pumped with an engine here, as the supply is getting low. The maximum temperature has been 100 degrees.

Field work this week consisted of some harvesting of Sudan in the variety plantings, cultivating the last date of planting and mowing. Some hoeing was done along edges of roadways to eliminate the growth of grass burrs, which have a tendency to creep outward. Bird shooting has been in progress all week. It seems as if all the birds in the country are flocking in here to harvest the grain which is heading. Soil samples were taken at the usual time during the week. The soil is getting hard and dry, so that sampling is a slow task.

The crops are holding out wonderfully well considering the dry spell that has prevailed. The only crop showing signs of suffering is field corn. This crop is looking good in some places, while others are burning badly. The drilled sorghum plat and millet are beginning to look pretty sick. All the remaining crops are still looking upward, holding their healthy green color and standing the heat without leaf curling. Nearly everything on the place is either headed or heading.

Another picnic was featured here this week. The Lions and Rotarians held a joint picnic on Tuesday evening. A big ball game was featured in which the Lions claim to have been victors. This was largely figured by the Lion score keeper pushing the pencil. Many compliments were received on the crops and station in general.

TUCUMCARI:

All crops are seriously in need of moisture, since the only precipitation received since July 12 was 0.14 inch, July 21. A yield well above the average for all crops is still possible, but each day of drought reduces the potential yield. Most milo is heading, while the majority of kafir plats are in the boot. Firing is becoming extensive on much of the cane and some broomcorn plats, while one kafir increase field is fired two-thirds to the top.

All plats and increase field have been cultivated recently; hoeing has been done where weeds were growing in the rows; and everything is unusually free from weeds. Early Buff and Black Eye cowpeas in the variety test have been harvested, a large amount of Sudan is in the shock, and two plats of cowpeas which were turning rapidly, although pods had not formed, were mowed in the hope a second crop might be procured. If the drought continues it will be necessary to mow all rotation cowpeas, for it is evident very little growth will be made until rain is received and leaves are turning on all plats.

Wind velocity has been so low it was necessary to pump with engine the past week.

Wheat harvest in this locality is practically completed, and farmers this year are showing good judgement in discing stubble as soon after harvest as possible. Row crops over the county will be unusually good if the drought is broken soon, but all localities are seriously in need of rain at this time.

Maximum temperature 100; Minimum 62; Evaporation 2.716; Precipitation 0.0; Wind velocity 2.8.

BIG SPRING:

Fine growing conditions have prevailed during the past week, and all crops have responded accordingly. Crops generally throughout this county offer better prospects for good yields than they have for the past four years. Cotton has made a good stock growth, and seems to be fruiting in good shape.

An increase field of Sudan grass was harvested this week, also the first date of Milo and Spur Feterita. Other work consisted of hoeing and dragging roadways and in picking cowpea seed from some of the early maturing varieties. Stand counts were made on the date of seeding plats of sorghums.

Maximum temperature 100; Minimum 65; Precipitation 0.

WOODWARD:

The week was spent in full force upon cultivators in a race to get over much of the rowed crop before it became too tall. The unusual number of heavy rains in July has kept land too wet to work during the time the last cultivation should have been made.

A number of the earlier of grapes were picked. The best grapes are being shipped this year to points of varying distance, to ascertain shipping quality.

A barbecue was held upon the Station grounds the fifth in honor of Assistant Secretary Dunlap, at which there was at a conservative estimate a crowd of 8,000 people. The affair could have hardly been a greater success.

Maximum temperature 104; Minimum 64; Average hourly wind velocity 4.8 miles; Precipitation 0; Evaporation 2.257 inches.

NOTE:- Each station has undoubtedly received by this time a shipment of canvas bags. These bags were offered to this Bureau by the Veterans Bureau free of charge if they could be used. The different stations receiving them can undoubtedly put them to good use.

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U. S. DEPARTMENT OF AGRICULTURE

AUG 14 1926

REPORT FOR WEEK ENDING AUGUST 14, 1926.
(Unless otherwise indicated.)

HAVRE:

Cooler weather, with several very light showers prevailed this week. Conditions were generally favorable for harvesting and threshing.

Threshing of small grains in the rotation field was completed today. Some of the data showing representative yields in bushels per acre for the more important tillage methods are tabulated below.

Maximum temperature 80; Minimum 40; Precipitation .21 inch

Method*	Winter Wheat	Spring Wheat	Barley	Oats
Spring plowing	--	4.3	8.5	4.1
Fall plowing	10.2	1.7	3.1	.0
Fallow	21.8	13.5	22.1	25.0
Disced corn	15.2	8.3	15.2	15.0

* With the exception of the data for disced corn, which were taken from adjoining plats, all yields are from the MC Methods.

Spring grains on fallow and disced corn ground were outstanding. Spring plowing gave variable yields which were considerably less than on corn ground. Fall plowing was the poorest method throughout; several oat plats being failures, with numerous low yields recorded for wheat and barley. In another part of the field, fallow yielded 11.0 bushels of wheat per acre, whereas wheat on disced grain stubble in the same experiment yielded but 2.7 bushels.

The relatively high yields on fallow and disced corn ground are of particular interest in that they show the importance of these methods in maintaining yields over very adverse years which are fatal to grains disced in and on spring plowing.

JUDITH BASIN:

Cool cloudy weather has prevailed throughout the week, and considerable precipitation has been received. A heavy downpour, totalling .68 inch occurred on August 13. A damaging hail accompanied the storm and shattered out from 50 to 75 per cent of the barley on the rotation plats in the East Field. Very little injury was done to the spring wheat, but reports have been received of extensive losses to winter wheat fields a few miles east of the station. Fortunately, the hail storm was more or less local in character, and did not extend over a very large area.

Because of the cool damp weather, spring crops have shown no noticeable advance toward maturity, and standing winter wheat has been bleached to some extent. Corn apparently has revived from the effects of the drought, but the leaves were shredded to some extent by the recent hail.

Harvest operations have been nearly at a standstill, and work during the week has consisted primarily of cultivating summer fallow, building fences, pouring concrete, and repairing machinery.

Visitors at the station were Mr. Robert Wilson, of the Northern Great Plains Field Station, and Mr. K. S. Quisenberry, of the Office of Cereal Investigations.

Maximum temperature 74; Minimum 42; Precipitation 1.19 inches.

HUNTLEY:

Cooler weather with frequent light showers was received during the past week. Notwithstanding the more favorable climatic conditions, corn is turning brown and other late crops are drying up slowly without forming seed.

Threshing of the Dry-land grains and flax was completed this morning. Yields have not yet been calculated for all plats, but the maximum wheat yield was from rotation 570, which returned about 35 bushels to the acre. Most of the other wheat yields were at the rate of 1 or 2 bushels per acre. Oats, barley, and flax were low in proportion.

Maximum temperature 91; Minimum 46; Precipitation, .37 inch.

SHERIDAN:

Threshing of small grain was begun the first of the week. Light rains interferred for a part of the week, but threshing of oats, barley, and winter wheat in the rotation field finally was completed. Rates and dates of seeding barley, and a part of the same experiment with winter wheat also were threshed, as well as the variety plats of the varieties of oats and barley used in the rotations. Some of the yields in the rotations were as follows:

	Bushels Per Acre					
	Wheat		Oats		Barley	
High yield	47.0	Rot.118	54.7	Rot.119	56.3	MCC
Low yield	8.0	571	3.1	70	7.3	MCB
After corn, disced	24.5		26.3		22.9	
" " , plowed			27.3			
" winter wheat, disced	10.5					
" oats, disced	16.5		17.0			
Fall plowed, after small grain	10.8(l.fall)		9.9		7.3	
Spring " , " " "	20.2(e.fall)		18.2		25.6	
Fallow	40.1		46.0		56.3	
Average	23.5		23.4		23.0	

Yields of oats on the check plats of the rotation field, on fall plowing following spring wheat, ranged from 2.2 bushels to 21.6 bushels per acre.

All of the corn on fall plowing in the rotations except in Rotation 244 and in the Continuous cropping series, were harvested early in the week. Very few ears had formed and the foliage had dried up to such an extent that it was useless to leave it standing. Some of the spring plowed plats are firing badly, but with favorable weather there is a possibility of the most of the spring plowing producing some corn. The weather over the most of the week was favorable for the crops still standing.

Maximum temperature 88; Minimum 48; Precipitation .36 inch.

MANDAN:

Agronomy.

Weather for the week mostly cool and cloudy with foggy conditions on several mornings.

Harvest of grain plats and seed blocks complete, except for one plat of lots seeded wheat on fallow. Moving of failure plats also completed and hauling off in progress.

Mandan, contd:

Threshing of rye plats in the rotations and crested wheat grass seed blocks has been finished. A seed block of Ceres wheat has also been threshed. A new Advance Rumley all steel thresher is being used. With the exception of one or two minor features connected with cleaning out, this machine is much more satisfactory than our old thresher.

Yields of rye varied from a little less than one bushel per acre on continuous cropped land to fifteen bushels on fallow. The seed block of Ceres wheat which was seeded in March on disced corn land yielded at the rate of eight bushels per acre.

Maximum temperature 80; Minimum 44; Precipitation .08 inch.

Cooperative Grazing Experiment.

The steers which have been grazing the hay land as an emergency measure were placed on the sweet clover pasture for a few days to clean up the Russian thistle. They seemed to graze this pasture somewhat under protest, but nevertheless grazed it down pretty well considering the nature of the crop.

The brome grass pasture has made sufficient recovery since the steers were removed in July, due largely to rains at that time and since, that they will be put back on the 15th.

The 50-acre steers are just about holding their own. Unless more rains come shortly it will be necessary to put them with the Reserves.

Horticulture.

Opata, Pembina, Raddison, and part of the Oziya plums were picked during the week. A number of other varieties will be ready to pick next week. Pembina and Raddison were very good this year. Anoka apples and Silvia and White Arctic crabs are also ripe. The Anoka looks very promising. It resembles its parent, Oldenburg, to a considerable extent. Florence crabs are also ripening.

Apples and plums were budded to send to cooperators include Duchess, Anoka, Patten, Alexis, Robin, and Whitney. Plum varieties include Waneta, Red Wing, Wyant, Compass, Opata, Tom Thumb, Zumbra, Mammoth, Sel. 73 and Sel. 83.

Blight is still troublesome in the apple and crab blocks. The trees were looked over carefully and blighted parts removed.

The selection of the earliest maturing and most desirable type of Golden Bantamn sweetcorn in mass planting has been in progress during the week. About 150 ears in the roasting ear stage in 60 to 65 days were tagged. The bagging and selfing in the ear to row project has been discontinued. Pollination was delayed so often through light showers that a large number of shoots were lost. The various ear progenies are showing up so uniform, however, that enough information on the most desirable strains can be obtained to cause a great deal of elimination and roguing facilitating the next year's breeding work. The remants of the best strains will be used in the project next season.

Tomatoes in the breeding project are commencing to ripen and selection work with these will be started next week.

Harvesting of vegetables as they become ready, hilling up vegetables as they become ready, hilling up of celery, and hoeing of gardens and orchards has been in progress during the week.

ARDMORE:

The past week has been unfavorable for field work. Threshing continued on Monday, when some small fields were threshed and also a few plats of oats.

Rain occurred on five days of the week. A total of 1.88 inches was received in one 24-hour period. A light hail fell on August 12, but did no damage at the Station.

Weeds have been cleaned up along the roads, and also in the shelterbelt, where it was dry enough.

A number of plat stakes were painted and lettered during the week.

ARCHER:

The weather has been cool with frequent showers and high humidity, making work in the fields impossible and producing a rapid weed growth. Some damage was done by hail on August 9. It shattered considerable grain of the winter wheat left standing, knocked off considerable oats and barley, and injured the heads of the spring wheat. The corn which was silking had the leaves quite badly stripped, while the heads of some of the sunflowers were broken off.

The pastures have greened up and the barley on the dry land plats and the winter wheat seeded in corn rows has been harvested. The sunflowers in the general field have started to bloom and are as high as a man's head. The millet in the general field is growing rapidly, and notwithstanding the season which has been unfavorable for them, considerable hay will be produced. The variety grains and spring wheat and oats are mid-way between heading and ripening.

The work during the week has consisted of some weeding, but most of the time has been spent about the farmstead preparing for threshing and repairing of buildings. The chimney on the dairyman's house was torn down and rebuilt. The milk house plaster was patched and given a hard coat half way up, as was also done in the bathroom of the bunk-house. Today all men are at work in the field weeding and seeding alfalfa and grasses.

Maximum temperature 83; Minimum 44; Precipitation 1.17 inches.

AKRON:

A rain recorded each day since the last report has kept teams from the fields all week. The delay is keenly felt, since early fall plowing date is near. Rain of 2.83 falling late in the afternoon of the tenth within about an hour proved a miniature cloudburst. Fallow land which had been cultivated with the duck foot cultivator was practically leveled. Rivulets developed into streams, which washed gullies, these gullies to be found on many of the sharper watersheds about the station. The second and third replication of the Rate and Spacing corn on the Forestry Quarter was entirely under water for a short while.

Another hail storm was reported during the week, this one occurring some ten miles south of Akron. The damage was local, but very complete according to all reports. The week of rains has washed out many bridges over the county.

Row crops are recovering nicely from the hail damage here on the station. Prospects are very promising for a good corn crop, and for a good yield of forage sorgos.

Akron, contd.:

The feeling is prevalent that there is being stored a reserve which should go a long way in insuring a good wheat crop another year. These rains, together with those of July should make fallow considerably more effective than it proved to be this year.

Odd jobs of fencing, fanning grain, removing dead wood from the forestry, and shrubbery plantings, held attention. Fully seventy-five per cent of the Russian Mulberry shrubs, both in the forestry and in the border plantings, have failed up to this time to even throw up root sprouts.

Maximum temperature 90; Minimum 54; Precipitation 5.07 inches.

NORTH PLATTE:

The long severe drought here has been effectively broken by rains beginning August 8 and extending through the week. The total for the week is 3.58 inches on the bench and about 1/2 inch less on the table. Rains have fallen over a wide territory, and will be of much benefit to pastures, alfalfa, and some late corn. Over 80 per cent of the upland corn was beyond recovery. The two seasons of rain during the summer were just too late in each case to save crops. The first, late in June and early in July, was just too late to save grain crops. It stimulated a vigorous growth of corn, which the second series of rain was just too late to save. The June, July, and August precipitation is somewhat above normal, but owing to extremely unfavorable distribution, the crops harvested are the poorest since 1913.

Early plowing is being pushed as rapidly as possible.

COLBY:

Three rains totalling 1.04 inches fell during the week. These rains all came as showers with very little runoff. They have revived the sorghum somewhat. Those sorghums that had suffered severely from the dry soil were not apparently revived. This is especially true of the ones that had suffered in the early stages of growth. Corn had completely dried in most cases, so that no recovery could be expected.

Killing of weeds by hoeing of roadways and fences took considerable time during the week. The sorghums were all cultivated during the week.

Maximum temperature 104; Minimum 58; Precipitation 1.04 inches;
Average hourly wind velocity 6.0 miles; Evaporation 2.076 inches.

HAYS:

Dry weather continues with some very hot days. The maximum for the week was 109. The last two or three days, however, have been cooler. At different times rains have come close, but thus far have missed this vicinity.

All feed crops are suffering severely, except where planted on fallowed ground, and even here the crops are suffering, but not as much as on cropped land. The crops on many of the plats are now burned until rains will not revive them.

Work during the week has consisted largely in cleaning out drainage ditches to prevent flooding of certain plats when the rainy season arrives, soil moisture work, some tillage, and repair work.

GARDEN CITY:

Continued dry hot weather has caused considerable damage to all crops. Most of the sorghums are standing up well. Those growing on either manured or green manured plats are about gone. Corn is standing the drought especially well, except for that growing on fall plowed land. The dry weather seems to be hindering the sorghums from emerging from the boot. The earlier planted sorghums have either dried up or have been almost destroyed by the birds.

All cowpea plats were cut for hay early in the week, except those that were turned under for green manure. Cowpeas dried up rather than ripened this year, and the yield of hay will be small as compared with the average.

Potatoes were dug this week. A yield of 16.7 bushels of poor quality tubers to the acre was secured.

We are beginning to prepare for our annual field day and picnic, which will be held on September 9.

Maximum temperature 103; Minimum 62; Precipitation .40 inch.

DALHART:

The past week has been hot and dry, with increased cloudiness toward the end of the week. Only a trace of precipitation was recorded. Considerable wind was blowing Tuesday, just ahead of the trace of rain, but very little wind has blown since. From present indications a rain may blow up most any time; however, some good chances have passed us up twice this week. Toward evening for several nights the sky has clouded over and shown good signs of rain, only to clear off within a few hours.

Some harvesting was done during the week. Several plats of Sudan were harvested, also the variety plat of millet. The variety peanuts were gone over this week and dirt hilled around the plants. The well was worked over the first of the week and new leathers put in. If present conditions prevail much longer, it will be necessary to install the pump jack and pump water with the engine. Everything is in readiness to install the jack in case it is necessary. Considerable hoeing was done along the edges of roadways this week in order to kill out the grass burrs. Bird shooting has been in progress during the entire week. The birds are certainly getting wise. Soil samples were taken at the usual time during the week. The moisture is being exhausted rapidly.

Crops are holding out during this spell in good shape, but are showing signs of damage. Some of the corn is burning pretty badly. Milo on the fall plowed plat is burning nearly to the top. The cotton is about the only crop that is not being damaged by this dry weather. On the earlier dates there are large bolls showing up to good advantage. The first four dates have bloomed and the last date will be in bloom within a few days.

Maximum temperature 99; Minimum 58; Precipitation trace. Note: Precipitation Friday night and Saturday morning .23 inch.

TUCUMCARI:

A rain of 0.83 inch the night of the thirteenth revived all crops and encouraged farmers. Prior to this rain, only 0.18 inch has been received in five weeks, and practically all crops were rolling extensively, while many fields had fired half way to the top. Crops over most of northeastern New Mexico give promise of fair to good yields, but rain has been urgently needed. It appears rain was quite general the past week, so very possibly the greater portion of this part of the State has been relieved.

Tucumcari, contd.:

Farmers over the wheat growing sections are working land immediately after harvest, a few listing, while the majority are discing. With early worked land, which should be free from weed growth, receptive to moisture, and in good tilth, with plenty of stubble to reduce the danger of winter and spring blowing; with an abundance of good seed, and with the knowledge that early seeding usually produces the best crop, farmers have a good chance of producing another good wheat crop if moisture conditions the next eight months are at all satisfactory.

Due to the wet spring, the corn acreage in this part of the State is unusually heavy and the crop, as a rule, is good.

Station work the past week consisted of lathing bunk house, harvesting some Sudan and cowpeas, shooting birds, and hoeing. The majority of rotation milo is in full head, while kafir is on the verge of full head.

Maximum temperature 99; Minimum 60; Wind velocity 4.8; Precipitation 0.90 inch; Evaporation 2.821 inches.

WOODWARD:

The week has been spent largely in harvesting grapes, cowpeas, and corn, and in filling silo.

The two light rains were very welcome after the intense heat of the past two weeks and will help the sorghum crops very much in heading.

Crops on the Station are exceptionally good. but over the country generally they are not. The Station is located in a very small area that received an unusual amount of July rainfall.

Watermelons and cantaloupes are coming in from the country as never before, largely due to help Station has given farmers in controling the aphis.

Mr. Locke and Mr. Sieglinger visited the State Agricultural College at Stillwater to confer with Experiment Station workers.

The Annual Field Day will be held Tuesday, September 7.

Maximum temperature 104; Minimum 66; Average hourly wind velocity 6.4 miles; Precipitation .95 inch; Evaporation 2.571 inches.

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OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 21 1926

REPORT FOR WEEK ENDING AUGUST 21, 1926.
(Unless otherwise indicated.)

HAVRE:

Rain occurred on six days of the past week, amounting to a total of .97 inch. This is the most rain that has occurred at the station since the week of June 20. With this rain there has also been a decided drop in temperatures. Threshing, with the exception of the varieties of spring grains, was completed before the rains. Maximum yields of grains were secured from the varieties of winter wheat, the standard varieties yielding from 30 to 35 bushels. Results this year show much more variation between winter and spring grains than have ever been noted at this station before. The results this year show the necessity of obtaining more information on growing winter wheat on fallow.

Since the rain last week a great many inquiries have been received, asking about the seeding of winter rye and winter wheat. It is quite probable that the acreage of both of these crops will be increased next year.

Root crops are making considerable advancement with the moisture and cool weather. Corn, however, seems to have passed the stage where it will grow. It has a healthy appearance and is not suffering. It now looks as though there will be very little grain on corn at the station.

Alfalfa seed grown under irrigation is ready to thresh. Third cutting alfalfa hay is about ready to cut where irrigation water was available.

Mr. M. L. Wilson, and E. J. Bell, Jr., of the Department of Agricultural Economics at the State College, have been working in this vicinity during the past week or ten days, and were at the station several times. These men, in cooperation with a number of men from the Department, including Mr. Rothgeb and Mr. Rendleson, are working on the storage of wheat that has been harvested with a combine. An experimental drier has been built and tried out at the station.

Maximum temperature 76; minimum 47; precipitation .97 inch.

JUDITH BASIN:

Cool cloudy weather has prevailed throughout the week and precipitation was recorded five days out of the seven. Much winter wheat and most of the spring wheat in this section of the Judith Basin is yet unharvested, and wet weather the past two weeks has bleached the winter wheat to some extent.

All plats of barley and spring wheat on the rotations were harvested the latter part of the week, and Marquis reseeded on winter wheat plats is practically ripe. Cutting of a 30-acre field of oats was completed, and harvesting of a 50-acre field of barley is well under way. Other fields and plats of grain are nearly ripe, and, if the weather remains favorable, all harvesting of small grains will be completed before the end of next week. A portion of the winter wheat nursery and a small increase field of Karmont were seeded.

From all indications, a larger acreage will be planted to winter wheat this fall than in previous years. There has been an unusually heavy demand for Karmont seed wheat, and it is doubtful if there is a sufficient supply of seed available to meet the demand. A number of growers of Karmont have already sold their entire crop of seed.

Professor Clyde McKee, of the Montana Experiment Station, visited the station on the 19th and 20th, and Mr. K. S. Quisenberry, of the Office of Cereal Investigations, terminated his visit of over two weeks, on August 18.

Maximum temperature 74; minimum 44; precipitation .37 inch.

HUNTLEY:

Occasional showers have been received and the weather has continued cool for the most part during the week. One rain of .44 inch was the heaviest shower recorded at the station since early in July. Late crops, such as beans and potatoes have benefitted by the favorable weather, but crops such as corn, sorgos, and sunflowers have dried up beyond the stage where rain will help them. A new growth of weeds has sprung up since the precipitation of a week ago, and stubble plats have become quite green with them. Alleys, roads, fallow, and green-manured plats were cultivated to destroy the new growth of thistles which have appeared.

SHERIDAN:

Threshing was continued through the week intermittently, as weather conditions and other work would permit. Light rains interferred for two days. Grain already threshed was elevated in the barn and some cleaned for weights. Sorgo, Sudan grass, and millet cut the week before was hauled and weighed. Threshind of grain in the rotation field was completed, except for the flax. Rates and dates of seeding trials with winter wheat, spring wheat, and oats, and a variety test with Arnautaka, Marquis, and Ceres spring wheat, and a seed block of Ceres wheat also were threshed.

The average yield of spring wheat in the rotations was 12.7 bushels per acre. Yields ranged from 3.3 bushels per acre in Rot. 58 on fall plowing to 25.8 bushels per acre on fallow in Rot. 18. The average yield on disced corn ground was 9.6 bushels, on spring plowing after oats 9.0 bushels, on fall plowing after oats 4.4 bushels, and on summer fallow 21.3 bushels per acre. Yields of Arnautaka, Marquis, and Ceres spring wheat by different cultural methods was as follows:

	Regular variety test - on fallow Ave. of 3 1/40 acre plats.	Bushels per acre on disced corn ground- ave. of 3 1/20 acre plats	On barley ground cult. with D.F. cult. only 3 1/20 plats ea.	Plowed
Arnautka	31.1	17.1	8.3	9.8
Marquis	29.3	20.9	10.8	12.4
Ceres	34.7	24.7	14.2	13.4

Arnautka produced slightly the longer straw, but all three varieties bound about equally well.

The weather was somewhat cooler than for sometime, and was fairly favorable for crops still standing. Some of the sorgo varieties, and that in rotation 58 continued to fire some.

Maximum temperature 88; minimum 41; precipitation .27 inch,- two showers with light hail; destructive hail in nearby localities.

DICKINSON:

Threshing of wheat, oats, barley, and flax varieties and miscellaneous experiments was completed on August 16. The winter wheat nursery was threshed, but all of the spring sown nursery remains to be done.

Winter wheat was seeded on the rotations August 20, and the variety plats on the 21. A rain of .51 inch on the night of August 18 wet the surface soil so that the seedbed was in fair condition. The soil below the top six inches is very dry, however.

Corn on fallow and in favored spots is looking fair, but that on fall plowing has never tasselled and shows no improvement since the rains.

Dickinson, contd.:

Much interest has been shown in the orchard, since the fruit is ripening. Several varieties of plum and a few of the crabs planted in 1923 have a very good set of fruit.

Poles have been set by the Hughes and Dickers light and power company to connect the station to this system. As soon as the line is completed this current will replace the Wind Electric plant which has supplied the station intermittently with lights since September 1922.

Mr. T.R.Stanton, Agronomist in Charge of Oat Investigations, left on August 15 after about a weeks work in the oat nursery.

Maximum temperature 82; minimum 41; precipitation .78 inch.

MANDAN:

Agronomy.

Owing to rain nearly every day this week threshihg has been delayed. With good weather threshing of the rotation plats should be finished in another day and a half. Barley plats are not yet fit to thresh. Stand notes on corn were taken during the week.

Maximum temperature 84; minimum 47; precipitation .90

Cooperative Grazing Experiment.

Work at the grazing pastures consisted largely in mapping list quadrats. Rains during the week have materially freshened the pastures. Gramma grass is making a noticeable showing.

Arboriculture.

Shelterbelt inspectors are finishing with the seasons field work and will all be back at Mandan by the end of next week. A quantity of seed from the Tartarian Maple blocks was picked on August 20 and 21.

Horticulture.

Budding for the season has been completed. Due to the dry weather stocks were small and the bark did not slip easily, so that good stands are not to be expected. Buds have been covered with soil to prevent drying out.

Plum varieties picked during the week include Compass, Minn. Sel. 56, 75, and 76, Cikana, and Ojibwa. Red Wing is now ready to pick and Florence crabs have been gathered.

The old Transcendent crabs in the crab testing orchard were pulled out because they were badly infested with blight. This disease has spread until it is found in practically all parts of the station plantings.

Sugar beet web worms are damaging the foliage of fruit trees and it will be necessary to spray some of the younger trees to prevent defoliation.

Selection work in the tomato breeding experiment has been started. The fruit is perhaps smaller in size than in other years, but the yield is good. Some strains seem to run more uniform in regard to clusters and general appearance of fruit, and if no early frost occurs it is hoped that a large number of the less desirable strains can be eliminated, and better ones concentrated on.

Vegetables in the acre garden are now yielding well. Due to the drought earlier in the season there is very little difference in the time of harvest of the different dates of planting of the same crop, the later plantings coming on at the same time as the ones first sown.

The recent rains have greatly improved the lawns, shrubbery, and flowers on the grounds. The lawns were moved, road edges trimmed and shrubbery hoed during the week.

ARDMORE:

The past week was favorable for threshing, with the exception of a day and a half, when operations were delayed because of rain.

Threshing of the rotation plats has been completed. The shocks had been soaked by two or three hard rains, and were in very poor condition. The yields were low. Spring wheat ran from 1 to 19 bushels per acre. The average yield per acre was 6.3 bushels. The highest yield was 19 bushels per acre on fallow in rotation 19. Oats run from 4.7 bushels per acre on sod in rotation 42, to 42.5 on green manure in rotation 32. The average yield per acre was 24.0 bushels. Barley ran 5.2 bushels per acre on subsoiling, to 32.5 on fallow. The average yield per acre was 18.6 bushels.

The larger fields of barley are now being threshed. One 12-acre field made 17.3 bushels per acre.

Corn remains in fair condition, but should be ready for silage soon.

The 80-acre pasture, which is carrying 10 steers, is very short. The cattle will now have to be moved to the reserve pasture by the end of the month. The other pastures remain in fair condition. Buffalo grass is making some growth after the rains of last week.

The rainfall for the month to date is 2.94 inches. There have been three or four hail storms during the month, one of which did a good deal of damage to corn, small grain that was not cut, and to grain in the shock.

Maximum temperature 90; minimum 48; precipitation .32

NORTH PLATTE:

The week has been dry throughout, with considerable wind movement. Fall plowing on the DLA Project and listing out of stubble ground on the Cereal Project have gone steadily forward. Ground is drying out rapidly where weeds have not been destroyed.

The writer spent four days of the week on the Better Crops Train operated by the Union Pacific R.R. in cooperation with the Agricultural College and Omaha Grain Exchange. The Western Counties of the State have one of the best wheat crops ever harvested in that section. Numerous yields of 30 to 40 bushels per acre are reported from land continuously cropped. Yields of 50 to 60 bushels per acre are said to not be uncommon on summer tilled land.

Smut infestation is widespread and unusually bad. One elevator in Cheyenne County which has shipped out over 450,000 bushels of wheat to date reports that 90 per cent of this had graded smutty, and 75 per cent contained rye. Seed treatment for smut was one of the special features of the Better Crops Train. Much emphasis was also put upon the necessity of weed control in the conservation of moisture.

COLBY:

Weather remained fairly favorable for crop growth during the week. Two more local showers visited the Station during the week. The sorghums have not responded to the moisture except where they had not suffered so much during the dry weather.

Some fall plowing for spring crops was done during the week. This ground was for the most part very dry and plowed up cloddy with considerable ashy ground mixed in with the clods. A field that has been in alfalfa for eleven years was also plowed during the week. This ground plowed up in a fairly good state of cultivation, considering how dry the ground was.

Colby, continued:

The fore part of the week all of the fall plowed and the summer fallowed ground was worked with the spring tooth harrow. Some weeds and volunteer wheat were just starting. The balance of the sorghum listed fields were cultivated and the listed sorghum plats were cultivated, except those on Rotations 505, 510, and MC-F where the sorghum had dried so that it was too short to level.

All wheat from this year's crop was cleaned during the week. The wheat from the D. L. A. project was recleaned and retested and protein samples taken from 36 plats.

The balance of the corn plats on the project were cut during the week, with the exception of the fallow plat. The fodder from the corn varieties was also cut. There was no corn on any of these and the fodder in most cases was completely dried and was falling to the ground.

Maximum temperature 94, minimum 56; precipitation .61 inch.
Evaporation 2.149 inches. Average hourly wind velocity, 5.5 miles.

HAYS:

The weather continues hot and dry. Good rains have been reported within 15 miles of Hays but all have missed this vicinity. The rains have been very local in nature.

Corn is dried up. The first to dry up was that planted on fall plowed ground, next spring plowed ground, and then fallow and double spaced row crops. This holds good for the sorghums as well as for corn. The best corn on the project is in two-year rotations where the corn alternates with winter wheat, the corn stover being left standing on the ground over winter. In these rotations both the corn and wheat is much better than where the stover is removed for forage. This statement also holds true with kafir as well as with corn for this year. However, it must be added, continuous corn and continuous kafir where only the grain crop is removed from the ground leaving the stalks stand is nearly as good.

Soil sampling, counting of stands and record work preparatory to harvesting of corn has largely made up the work of the week.

Maximum temperature 98, Precipitation .19 inch.

GARDEN CITY:

Weather conditions during the past week have been a continuation of those that have prevailed during most of the summer. High temperatures and drying winds have damaged most crops. A great many of the sorghum plats are damaged until recovery is impossible. Corn can not possibly make much of a yield. About the only crops that are not showing the effects of the drought are the sorghums in the June 30 date of planting.

The first date of seeding winter wheat was made on the 20th in a dry, loose seedbed. There is no chance of germination until rain is received.

Mr. E. S. Lyons, of the Kansas Experiment Station, was a station visitor for the first two days of the week.

Maximum temperature 100, minimum 58; precipitation .12 inch.

TUCUMCARI:

While showers amounting to about one inch were received a week ago, crops as a rule are in need of rain. Broadcast is again firing to some extent, rowed crops are doing fairly well, while a large number of cowpea plats were losing their leaves so rapidly that harvesting was necessary. Spring precipitation was unusually heavy, but only 1.20 inches of rainfall has been received the past six weeks. Sorghums still show a prospect of making better than average yields if sufficient rainfall is received within the next two or three weeks.

Harvesting of cowpeas, hauling of the first Sudan grass cutting, hoeing, and cultivation of increase fields and the Cereal blocks, date and variety, have consumed the time for the past week. Birds are normally troublesome and much time, mileage, and grief have been occasioned by their ravages during the past week. Early and late shooting, with occasional rounds during the day, have held their attacks to a minimum, although the early date plats of milo and feterita and a few variety plats have been partially stripped by them. Rotation plats have been injured very little to date.

Cowpeas and Sudan grass, as green manure, were plowed under August 17, when the M.C.C. plats of wheat and rye were plowed.

Maximum temperature 96, minimum 56; precipitation .18 inch.

Evaporation 1.893 inches. Average hourly wind velocity, 4.1 miles.

BIG SPRING:

Weather conditions during the past two weeks have been hot and dry, with hot winds prevailing nearly every day. The result of this state of affairs is that crops which were green and fresh two weeks ago are now burned so badly that they are about ready to be cut. Corn and milo seem to have suffered most. They will probably be cut next week. Cotton seems to be growing pretty well although it wilts considerably during the day.

Cowpeas in the rotations and in the increase field have been harvested during the past week; as a whole a good crop was obtained. Sudan hay is being hauled today from an increase block. A fine quality of hay is being obtained. Other work has consisted of cleaning out the feeding pens and silo.

Mr. Williamson, State Extension Leader, and Mr. Kolb, of the "Southern Ruralist", Atlanta, Georgia, were station visitors on August 21.
Maximum temperature 107, minimum 68; precipitation .07 inch.

WOODWARD:

The week has been devoted to harvesting grapes and doing miscellaneous cultivations, especially on land to go into wheat.

The weather continues almost ideal for the best development of sorghum crops. We have received no big washing rains this season, but an easy falling shower has come about every time it was needed.

Practically all alfalfa about the country was left for seed. Only a small amount of seed was set, however, and this was injured in the shock by rains. Farmers will realize very little either from seed or hay this season.

Reports indicate that there will be a good attendance at the Annual Field Day, September 7.
Maximum temperature 92, minimum 64; precipitation .56 inch.
Evaporation 1.279 inches. Average hourly wind velocity 4.1 miles.

NOTE:

In submitting reimbursement vouchers, field men will no longer accompany them with filled-in maps of routes traveled, as this has now been superseded in the Bureau by new method of recording travel.

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BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 28 1926

REPORT FOR WEEK ENDING AUGUST 28, 1926.
(Unless otherwise indicated.)

HAVRE:

The daily temperatures during the last week were high on three days, the maximum temperature on the 25th reaching 100, which with one exception, was the warmest day this season. Night temperatures have been reasonably lower.

Winter wheat seeded with a furrow drill and the ordinary drill on August 15 is up with very good stands. The earlier flint corns are showing some progress and will probably make a light crop of grain. It is doubtful whether any of the Dent varieties will reach maturity.

Plats on the rotations were prepared during the week for the seeding of winter grains.

Maximum temperature 100, minimum 41; precipitation, trace.

JUDITH BASIN:

In contrast to the cool, cloudy weather of the previous two weeks, relatively high temperatures and strong hot winds prevailed during the greater portion of the past week. Conditions have been very favorable for harvesting, and combining operations have been completely resumed throughout the Judith Basin.

Corn has not recovered from the effects of the hail received two weeks ago, and the recent hot winds have caused a few plats of corn on the rotations to commence to burn. Field beans and other late crops are also showing signs of suffering from the effects of the hot winds and are beginning to ripen.

Visitors during the week were Mr. F. A. Coffman, of the Office of Cereal Investigations, and Mr. Fred Bennion, State Leader of County Agents.

Maximum temperature 95, minimum 41; precipitation 0.

HUNTLEY:

Warm weather with two days of hot wind put the final scorch to the corn and the crop was cut on the 26th and 27th. The only ear corn formed was on a few plants bordering on the roads or growing in spots where run-off had accumulated. Most of the plats produced no grain whatever, and the average height of the plants was about 30 inches.

Huntley, continued:

Fall plowing and the preparation of land for winter wheat and rye was begun early in the week. Although the soil is very dry the seedbeds obtained for these crops are much less rough and cloddy than expected. Considerable moisture will be needed to soak up this land and insure a stand this fall however.

A general round of soil sampling just completed shows fallow plats to be dry below the second foot and dry in the surface 6 to 8 inches in most cases.

Maximum temperature 103, minimum 51; precipitation, Trace.

SHERIDAN:

Hot weather accompanied with considerable wind the first of the week made it necessary to stop threshing and harvest the corn and a large part of the sorgo. Sudan grass in the methods of seeding was harvested the first of the week. The corn left in the rotation field was fairly well ripened. Some plats produced a fair yield of ripe corn, but on many of them the yield will be quite small.

A seed plat of Markton oats, the varieties of winter wheat, and a part of the varieties of spring wheat were threshed the first two days of the week. The seed plat of Markton oats on the light soil fallow last year made a yield of slightly over 100 bushels on two acres.

Maximum temperature 102, minimum 45; precipitation, Trace.

DICKINSON:

The weather has again been hot and windy so that most crops which were growing are ripening or drying up very fast.

Corn on the main rotations was cut with the grain binder on the 27th, except the continuous corn. These plats are somewhat better than the plats in rotation as they are taller, greener, and will produce a small amount of grain. Corn on the fallow plat is still fresh and green and good ears are forming.

The winter wheat nursery was seeded August 24. Winter wheat and rye seeded on the rotations August 20 is emerging with good stands.

Millet on Rotation 242 and in the variety test was cut on the 28th Yields were light.

Dickinson, continued:

The station was connected with the Hughes Electric line on August 26, giving us 110-volt current to replace the 32-volt from the wind-electric plant. This company is surveying a line past the station 20 miles west to Belfield. The line soon will be connected through to Bismarck, 120 miles east. In the near future most of the current for the whole system will be generated at a power station located at their lignite mines near Beulah.

Mr. K. S. Quisenberry and Mr. F. A. Coffman, Associate Agronomists, Office of Cereal Crops and Diseases, were visitors during the week.

Maximum temperature 101, minimum 47; precipitation 0.

MANDAN:

Arboriculture

Mr. Lewis Matthew completed his inspection of shelterbelts on the 23rd. Messrs. George and Emerson are expected to arrive at Mandan by the first of the week. A field count of the shelterbelt nursery stock has been completed, giving the following stock for use in demonstrations to be set out next spring: Green Ash 35,805, Caragana 36,983, Boxelder 8,888, Russian Olive 4,287, Northwest Poplar 22,105, Chinese Elm 701, Jack Pine 1,845, Norway Pine 3,154, Scotch Pine 4,360, Larch 493, Black Hill Spruce 5,900, Blue Spruce 6,696.

Horticulture

Waneta, Red Wing, Hanska and a number of other plum varieites were harvested during the week. Several crab varieties were also harvested. Fair yields were generally obtained.

Notes are being obtained on sweet corn and tomatoes in the breeding blocks. Some harvesting was done in the acre garden.

Sugar beet web worms have caused some damage to the plum and apple trees by eating the foliage and have also attacked the gardens. The damage has been checked by spraying with arsenate of lead.

Agronomy

Three successive days with the maximum temperature above 90 have left their effect on corn and sorghum. Ripening of corn has been hastened to such an extent thatit will have to be harvested within a few days.

Mandan, continued:

The millet varieties with drilled plots of sorghum, Sudan and proso were cut for hay during the week. Dry weather pinched the millets so much that for the most part they failed to head.

The third cutting of alfalfa varieties and alfalfa on the bottom land of field "B" was cut and put up during the week. The yield seemed to be about as good as the second cutting.

The first sampling in the maturity test of corn was made on the 23rd. Very little corn was much beyond the dough stage on this date.

The sugar beet web worm which has been doing considerable damage during the past ten days has about finished its job of destruction. The most serious damage was done to such crops as sugar beets, mangles, sunflowers, and Russian thistle. Some damage was noticed on corn and sorghums but not of a serious character. Many reports of damage have come in from the country, some of them indicating considerable injury to corn.

Cooperative Grazing Experiment

All steers are being weighed today. It is probable that steers in the 50-acre pasture will have to be put on reserve and all of the sections of the rotation units opened for grazing.

Maximum temperature 98, minimum 48; precipitation 0.

BELLE FOURCHE:

The past week was one of the hottest of the season. On the 25th the temperature reached 103 and on the 26th, 105. The high temperature was accompanied by moderately strong winds. The corn was short of moisture at the time and considerable firing took place. On many plats over two-thirds of the leaves were killed. The only plat not damaged to some extent was the plat of corn on fallow. Most of the corn was nearly ready to dent at the time the firing occurred and while yields were no doubt greatly reduced, the prospects still are for a fair yield. Cooler weather, together with a shower the latter part of the week, stopped firing temporarily.

Threshing of the dry land rotations has been completed except for one plat of flax. Average yields are high for the most part, and variations between methods are extreme.

Bellefourche, continued:

The average yield of spring wheat was 31.3 bushels per acre. The maximum yield was 52.5 bushels per acre on Rotation 71, and the minimum 18.2 bushels on Rotation 34. The average yield of winter wheat was 32.4 bushels per acre with a maximum of 49.7 bushels per acre on Rotation 413 and a minimum of 25.0 bushels per acre on plat F of the M. C. Series. The three plats of winter rye produced an average yield of 24.0 bushels per acre. The average yield of barley was 44.1 bushels per acre. The maximum was 77.9 bushels per acre on plat C of the M. C. Series and the maximum 28.1 bushels per acre on plat F. The average yield of oats was 59.7 bushels per acre. The maximum was 86.3 on plat C of the M. C. Series, and the minimum 38.1 on Rotation 42. The quality of all grains was good.

Most of the fall plowing was completed during the week. The soil plows much easier than usual.
Maximum temperature 105, minimum 50; precipitation .25 inch.

ARDMORE:

The past week has been very favorable for all field work. Threshing was practically completed early in the week, when a 40-acre field of oats was threshed. This field yielded about 28 bushels per acre.

Corn varieites for silage were cut during the week, and also some of the larger fields. Sunflowers were also cut for silage. The silo at the beef cattle shed was filled, and required about 52 tons of silage. Corn varieites made from 2.3 to 6.4 tons per acre.

Some Sudan grass has been cut for fodder. A few plats of flax that were total failures were mowed, and the weeds raked up and hauled away.

A high wind on the 28th delayed baling straw, which was planned for that day.

On August 26 the temperature went to 106° F. This is the highest temperature that has been recorded since the station started in 1912. Hot winds prevailed in the afternoon of the 25th, and the evening of the 27th.

Mr. O. R. Mathews, of the Bellefourche Station, spent Sunday and Monday visiting the station. Mr. J. F. Benson, Superintendent of State Parks, and Mr. Goswick, State Gamekeeper, were callers at the station on August 27.
Maximum temperature 106, minimum 51; precipitation, 0.

ARCHER: Week ending August 21.

The weather during the week has been marked with considerable cloudiness, high winds at times but no precipitation.

The corn crop has improved in appearance and the sunflowers continued to make good growth. The wind which was rather severe caused them to wilt at times. Spring wheat and oats are maturing rapidly. Some of the early oats are ripe.

Work at the station has consisted of weeding, harvesting and threshing. The threshing of winter wheat will be completed today.
Maximum temperature 84, minimum 44; precipitation 0.

ARCHER:

The weather has been very hot and dry with rather hot breezes at times. This condition caused rapid ripening of small cereals. The wheat on the Dry-Land plats finished ripening today and the oats will be ready to harvest by Monday. The early varieties of oats and barleys have been harvested and some of the varieties of spring wheat are ready to harvest. The sunflowers are wilting badly and are in need of rain. The corn also suffered to some extent during the hottest days. The prairie grasses are brown, except in favored places, and have taken fire in a couple of places from railroad engine sparks. The dry condition of pastures is causing a marked decrease in the milk flow.
Maximum temperature 94, minimum 48; precipitation .03 inch.

COLBY:

It rained last Sunday, starting the week more favorably than usual, but before the week was up we had two of the hottest winds of the season. As a result crops have deteriorated considerably. The milo and kafir plats, even on fallow, are firing badly. It looks as though only the outside rows on any of them would head.

Plat M. C. C. Corn, the last remaining corn plat was cut. The stalks on the outside row next to D were still green but the rest of the plat had ceased growth and was drying rapidly. There was practically no silking except on the outside rows.
Maximum temperature 103, minimum 55; precipitation .39 inch.
Evaporation 2.402 inches. Average hourly wind velocity, 7.4 miles.

HAYS:

Dry, hot weather continues with a very detrimental effect upon all crops yet alive. The temperatures have been extreme with high maximums most every day. Maximum for the week, 105, minimum 53. Sunshine all week until today a few clouds hid the sun part of the time.

Hays, continued:

Corn was burned to the point where the fodder was breaking off and wasting when it was harvested for fodder, August 23. Milo was the next crop to burn up. It had reached the stage where it was impossible for it to make any grain and was harvested today. Its misery from drought was being added to greatly by chinch bug attack. Kafir looks especially bad on all fall plowed ground whether it be continuously cropped or in rotations following small grain. It is doubtful if any of it can make grain. The average height is about 24 to 30 inches, having made no growth during this month. On listed ground it is slightly better but poor. It is not as good as it seems it should be on fallow. The best is where the stalks are allowed to stand on the ground over winter, whether it be continuous kafir, or alternates with winter wheat. There seems to be a beneficial effect on this year's crop where the stalks stood on the ground during the winter 1924-25. This is also true with corn. In fact, about the only grain produced on the corn crop is where the corn alternates with wheat and the stalks were allowed to stand over winter, the wheat having been drilled in with a one-horse drill, in the fall of 1924, and where corn is grown continuous with stalks left over winter, or where it was double spaced.

A very light third crop of alfalfa was harvested on the fertilizer plats on the bottom land, August 26. Although the third crop is very short and light, it is well covered with bloom. The station is letting some of the fields stand for a seed crop.

Upland alfalfa has made no growth that can be mown for hay since the first crop was harvested.

Feed crops, generally, are very short in this vicinity. The Experiment Station is now selling baled alfalfa for $18.00 per ton, and straw for $8.00 per ton,--pretty good prices for this early in the season.

GARDEN CITY:

A two-inch rain fell here last Sunday night and helped to revive the crops that were suffering from drought. A part of the sorghums were so near dead that they did not revive. The rain will be a big help to the farmers who are preparing the seed bed for winter wheat. The rain seemed to be rather local as much less amounts were reported from surrounding counties.

Garden City, continued:

Field work has consisted of cultivating fallow plats with the duck-foot cultivator. This cultivation was partly necessary because the rain packed the surface. Many small weeds had also come up since moisture was received. Roadways are being disked today.

Winter wheat in the date block which was seeded August 20 is just beginning to emerge.

Maximum temperature 98, minimum 56; precipitation 2.00 inches.

TUCUMCARI:

Crops are making excellent growth and indications point toward satisfactory yields throughout most of eastern New Mexico. Many fields of milo are ripening, while the majority of the kafir acreage ranges from bloom to soft dough stage. Birds are exceptionally numerous this year and some farmers near the station are harvesting milo while still in the dough stage to prevent further loss. The wheat acreage sown this fall will undoubtedly be unusually heavy and the land will, as a rule, be much better prepared than usual. No doubt at least three-fourths of the wheat sown will be drilled on disked wheat stubble, and as the straw this year was unusually heavy this should aid greatly in minimizing soil blowing.

Final cultivation of some increase and plats, harvesting of cowpeas for both hay and seed, rogueing, making heading baskets and bird shooting were performed during the week.

Maximum temperature 97, minimum 57; precipitation .54 inch.

Evaporation 1.919 inches. Average hourly wind velocity, 3.4 miles.

BIG SPRING:

A rain of a half inch relieved this section from the hot winds which had been so prevalent and detrimental during the previous ten days. This rain was not sufficient to do the crops much good, but it did prevent them from burning more.

Cotton has been shedding badly, and it is not fruiting as heavily as it should. Although the worms have not attacked the station cotton and that in adjoining fields, many farmers in this county report severe losses from the cotton leaf worm. Although the local Chamber of Commerce has shipped in three carloads of calcium arsinate to combat this pest with, many fields have been entirely defoliated.

Big Spring, continued:

The work this week has consisted mainly of harvesting milo and kafir plats in the rotation field, also corn plats. Many of the milo plats will not yield anything while others will make fairly good yields. The kafir plats as a whole will probably yield fairly well. Other work consisted of hauling Sudan hay and shocking cowpea hay.

Maximum temperature 100, minimum 52; precipitation .75 inch.

LAWTON:

Although precipitation for the month of July amounted to only 1.41 inches, the temperatures were not severe and growth of row crops was not seriously checked. The deficiency of 1.73 inches of precipitation in July did not leave the crops in shape to withstand the hot winds and high temperatures during the first ten days of August. From the 2nd to the 9th the maximum temperature varied from 99 to 104. During this period row crops suffered intensely. Cotton wilted and the young fruit was rapidly and persistently thrown off. Chinch bugs added injury to the sorghum crops.

Rains that were general throughout the southwest region began August 13 and totaled 6.63 inches by the 29th. During this period it has been cool and cloudy much of the time. Sorghum crops recovered and highly satisfactory yields are now insured. Cotton yields will be spotted but on the whole fairly satisfactory. Grasses of all kinds are growing abundantly and vigorously.

Some harvesting of grain and forage sorghums has been done but maturity of these crops is delayed by the cool, damp weather. Bird damage has so far been well controlled but at a heavy expense and with much effort.

Soil conditions are excellent for seeding small grains and that work will likely progress throughout the county early in September in order to secure early fall pasture.

WOODWARD:

Two small showers were received the fore part of the week.

Work has consisted of harvesting variety cowpeas, cutting and hauling in alfalfa, planting grass in draws to stop soil washing, and cultivating late row crops.